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## CURRENT NOTES ON ANTHROPOLOGY. — I.

[Edited by D. G. Brinton, M.D., LL.D.]

## Evolution of the Human Skull.

DR. PAUL TOPINARD of Paris, whose studies in physical anthropology place him in the front ranks of that science, has summed up in a recent number of *L'Anthropologie* the results of several years' investigations concerning the transformation of the animal into the human skull. He demonstrates that this change is brought about by the gradual development of the brain, and the resulting mechanical pressure on the hard parts adjacent. The pressure exerted by the enlarging hemispheres on the occipital bone is in a direction backwards and downwards, so that what is its superior surface in ordinary mammals becomes the posterior in man, and its posterior face the inferior. The occipital foramen, instead of looking backwards, is in man turned downwards. The increase in size of the anterior lobes of the hemispheres brings about still greater changes in that portion of the cranium. The orbits are pressed from a lateral into a frontal position, the face, instead of being in front and oblique, becomes vertical, and below the frontal lobes; and numerous minor alterations in the anatomy of the parts are necessitated by these changes. It is easy to arrange a perfectly graduated series of skulls illustrating this development from the lowest mammals up to man. Next to him are the monkeys, below these the lemures, and then follow the inferior mammals. Everywhere the principle of harmonic accommodation of organ to function is strikingly shown. Although the general statement of this evolution has been frequently advanced, it has never before received so complete a demonstration.

## Physical Types in the Natives of South America.

The effort has repeatedly been made to subdivide the native tribes of South America on purely physical characters. It was attempted more than fifty years ago by Alcide D'Orbigny, in his "*L'Homme Américain*;" but his plan has not

proved satisfactory. The latest scheme is that of Dr. Deniker, who accompanied the French scientific expedition to Cape Horn. He measured some eighty odd Yahgans, a tribe who live on the southern shore of Tierra del Fuego. He found them of short stature, head large and mesocephalic, prominent superciliary ridges and malar bones, forehead narrow, low, and retreating, eyes small and horizontal, orbits medium, mouth large, lips thick, slight prognathism. On the strength of these measurements, Dr. Deniker has urged in various scientific publications that we find in the Yahgaus a "race" quite different from the Patagonians and allied to the Botocudos, the Coroados, and the Aymaras, as well as to the ancient Lagoa Santa peoples. This grouping, allowing that it is anatomically accurate, serves to illustrate how useless is an ethnographic classification based on small anatomical points. The Aymaras, Botocudos and Yahgans are as far apart in language, culture and character as any tribes which could be selected in South America. Moreover, the Botocudos differ widely among themselves in physical aspects, as Dr. Paul Ehrenreich has abundantly shown. In fine, it is high time to dismiss the anatomical subdivisions of the American race, and rely on language as, after all, when prudently employed, our best guide.

Deniker's theories will probably attract the more attention by being brought into relation with the interesting recent discoveries by Florentino Ameghino in the eocene beds of Patagonia. This eminent geologist has described, in a late number of the *Revista Argentina de Historia Natural*, the remains of four species of monkeys from what he believes to be the lower eocene — which would place them far more remote than any found in Eurasia, the oldest there exhumed being from the middle miocene. Ameghino therefore claims Patagonia as the cradle of the first Primates and of the immediate precursors of Man. Nor does he hesitate in this connection to add that in his opinion the very oldest relics of man's activity have been found in the same district.

We must, however, temper this enthusiasm by some hesitations. When Ameghino assigns these beds to the lower eocene, he does so entirely on palæontologic grounds. The more cautious geologists are getting to rely less and less on these, and to demand more and more stratigraphic testimony. This is alone convincing. The native fauna of Australia to-day is much older in type than that of Eurasia; and similar instances no doubt existed in all ages of the world's history. Moreover, the remains which Ameghino describes are strictly American in type. His *Anthropops perfectus*, although it had its teeth disposed in a semicircle, as in man, had nevertheless thirty-six teeth, as had all the American monkeys, both recent and fossil. His *Homunculus Patagonicus* was yet more Lemurian in type. The evidence is far from adequate, therefore, to substantiate the daring inductions which Ameghino draws from these finds.

## The Question of the Celts.

The latest contribution to the vexed question of the ethnographic position of the Celts is from the pen of the veteran anthropologist of Bonn, Professor Schaaffhausen. It is published in the *Festschrift zum Fünfzigjährigen Jubiläum des Vereins von Alterthumsfreunden im Rheinlande*. It includes a careful review of the classical authorities on the Celts and Gauls; in which one is surprised to find a denial that the bands who overran Italy in 393 B.C. were Celtic. Surely the title of their chiefs, *brennus*, "king," is evidence enough that they spoke a Celtic dialect. The professor is also sadly out in attributing the North African blonds to immigration from Europe. The blond type is essentially